

(12) UK Patent Application (19) GB (11) 2 279 564 (13) A

(43) Date of A Publication 11.01.1995

(21) Application No 9313918.6

(22) Date of Filing 06.07.1993

(71) Applicant(s)
Norman Barton
45 Pendlebury Rd, Swinton, MANCHESTER, M27 1AG,
United Kingdom

(72) Inventor(s)
Norman Barton

(74) Agent and/or Address for Service
Norman Barton
45 Pendlebury Rd, Swinton, MANCHESTER, M27 1AG,
United Kingdom

(51) INT CL⁶
A47L 23/22 23/24

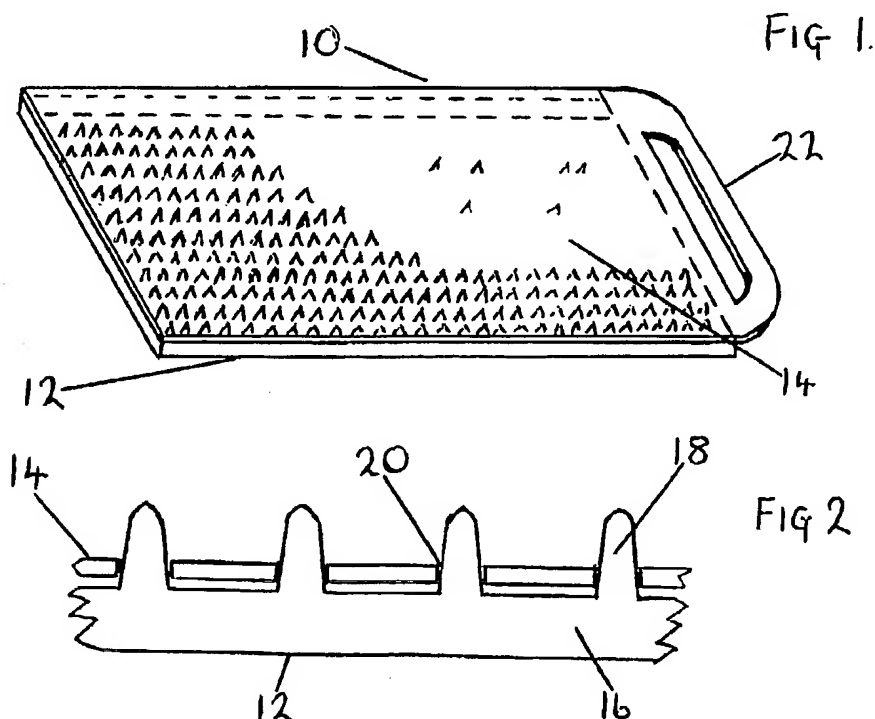
(52) UK CL (Edition N)
A4S S1D S1F S1J S1K

(56) Documents Cited
GB 1341817 A

(58) Field of Search
UK CL (Edition L) A4S S1D S1F S1J S1K
INT CL⁵ A47L 23/22 23/24
ONLINE DATABASE :WPI

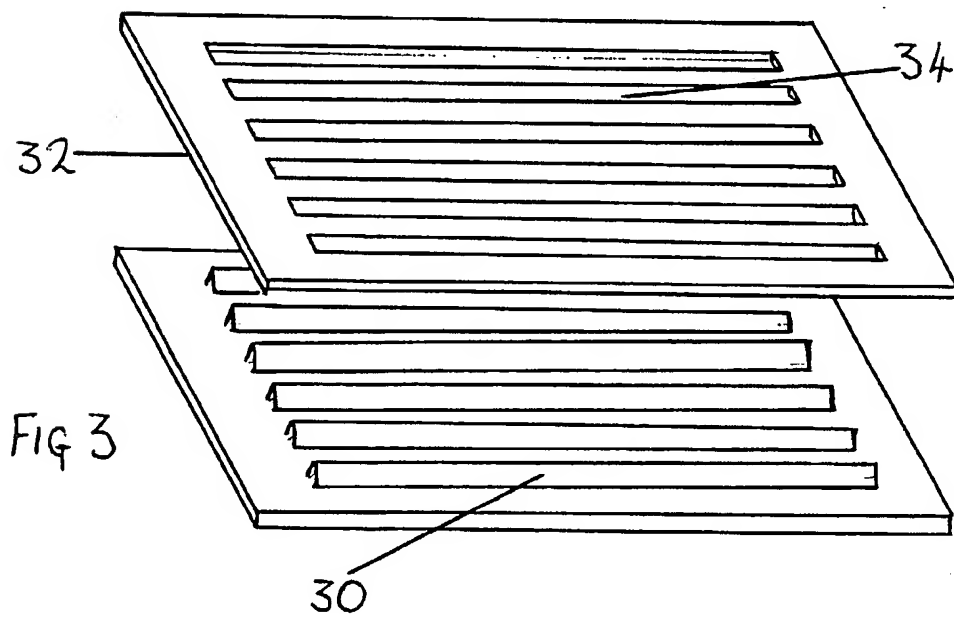
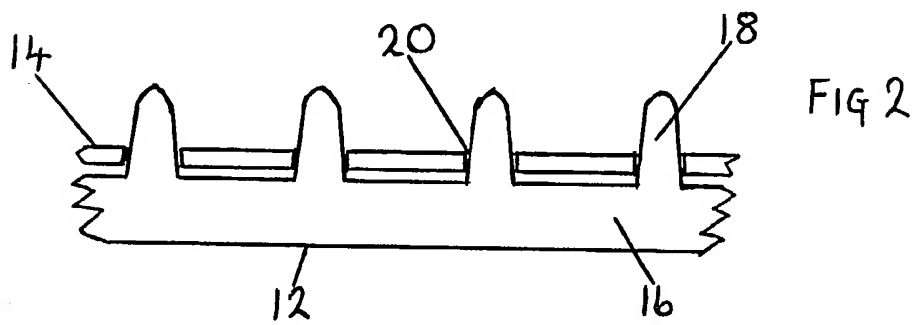
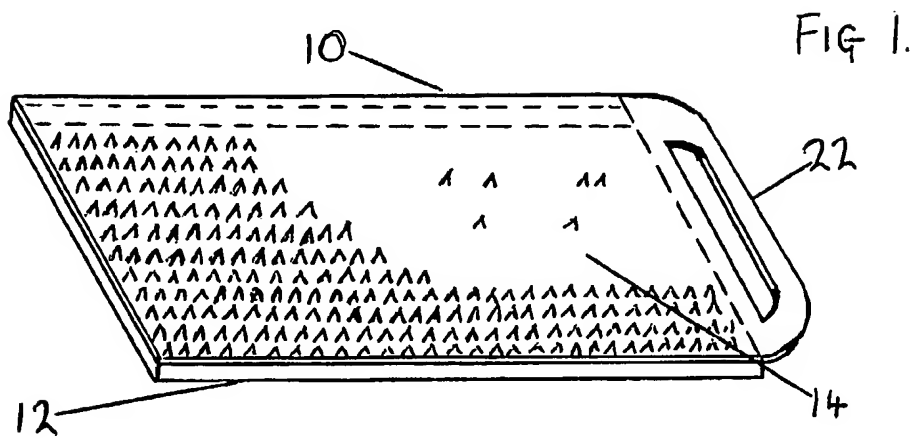
(54) Two part footwear cleaning mat with complementary protrusions and apertures

(57) A foot mat is described, the foot mat (10) comprising a base member (12) having cleaning protrusions (18) extending therefrom, the protrusions extending substantially normally from the base member and tapering towards their ends; and a plate member (14) having apertures (20) therein and at least coextensive with the area of said base member having protrusions thereon, said apertures receiving therein said protrusions and said plate member being removable in order to remove dirt from said mat. The protrusions may take the form of tapered spikes, as shown in figures 1 and 2, or upstanding rib like members (30, see figure 3).



GB 2 279 564 A

111



FOOT MAT

The present invention relates to a two-part mat for cleaning footwear and which is itself easy to clean.

Footwear cleaning mats are well known. Mats of metal, plastics and natural products are intended to remove dirt from the undersurface of footwear. Mats of metal construction usually take the form of a grid with rib-like webs to scrape off the dirt. Plastics material mats generally have pimples spaced at regular intervals protruding upwardly from a flat base and are used to remove dirt from footwear. A problem with both these types of construction is that they become blocked with regular use or in muddy conditions in bad weather for example and are difficult to clean. Moreover, with footwear having a deeply treaded sole and heel, only the surface dirt is removed.

It is an object of the present invention to provide a foot mat which is easy to clean when soiled.

According to the present invention there is provided a foot mat, the foot mat comprising a base member having cleaning protrusions extending therefrom, the protrusions extending substantially normally from the base member and tapering towards their ends; a plate member having apertures therein and at least coextensive with the area of said base member having protrusions thereon, said apertures receiving therein said protrusions and said plate member being removable in order to remove dirt from said mat.

The plate member may be flexible and may be made of a plastics material and have a handle member to assist in removal from the base member.

The plate member may be easily removed from the base member, cleaned and thereafter replaced over the cleaning protrusions.

The base member and protrusions may be made from either rigid material or from resilient material which adopts its previous shape after being deformed by someone scraping dirt from their shoes for example. Suitable materials may include metals, plastics and rubber materials for example.

The protrusions may be in the form of spikes of substantially round cross section or may be of rectangular cross section and be in the form of upstanding plates or rib-like members.

The apertures in the plate member will correspond to the cross sectional shape of the cleaning protrusion and may, therefore, be in the shape of round holes or slots for example. Of course, many other corresponding shapes of aperture and protrusion may be employed.

The protrusions and corresponding apertures may be distributed over the surface of the mat in any desired pattern or configuration which facilitates the cleaning of footwear.

In order that the present invention may be more fully understood, examples will now be described by way of illustration only with reference to the accompanying drawings, of which:

Figure 1 shows a perspective view of a mat according to the present invention;

Figure 2 shows across section through part of the mat of Figures 1 and 2; and

Figure 3 which shows an alternative embodiment having a different shape of protrusion.

Referring now to Figures 1 and 2 and where the same features are denoted by common reference numerals. A foot mat is indicated generally at 10 and comprises a base member 12 and a removable plate member 14. The base member comprises a sheet 16 having moulded integrally therewith upstanding spikes 18 in a resilient plastics material. The spikes 18 are of round cross section and taper towards their upper ends. The plate member 14 comprises a sheet of flexible plastics material having apertures 20 therein and a handle member 22 at one end to facilitate removal from the base member 12. The plate member 14 is at least coextensive with the area of the base member covered by spikes, the spikes being received in the apertures 20 which rest on the lower portions of the spikes so as to form a dirt seal therewith.

The plate member receives dirt (not shown) scraped from shoes (not shown) and prevents the dirt from accumulating on the sheet 16 and becoming compressed and difficult to remove. Once the quantity of dirt has built up on the plate member 14, it may be removed from the base member 12 by the handle 22 and the dirt easily removed therefrom. Any dirt which has found its way onto the sheet 16 will only be in small quantities and is also easily removed.

Figure 3 shows a perspective view of an alternative arrangement where the protrusions are in the form of upstanding rib-like portions 30. The portions 30 again taper towards their upper ends to allow easy fitting of the plate member 32 which is provided with corresponding slot-like apertures 34. The apertures 34 rest on the lower, thicker region of the rib-like portions to form a seal therewith.

It should be stressed that the seal is only to prevent large quantities of dirt from falling between the apertures and the protrusions and need not be a seal in the sense that no fluids, for example, can pass therebetween.

CLAIMS

1. A foot mat, the foot mat comprising a base member having cleaning protrusions extending therefrom, the protrusions extending substantially normally from the base member and tapering towards their ends; a plate member having apertures therein and at least coextensive with the area of said base member having protrusions thereon, said apertures receiving therein said protrusions and said plate member being removable in order to remove dirt from said mat.
2. A foot mat according to claim 1 wherein the plate member is flexible.
3. A foot mat according to either claim 1 or claim 2 wherein the plate member is also provided with handle means to facilitate removal from the base member.
4. A foot mat according to any one preceding claim wherein the base member is made from rigid material.
5. A foot mat according to any one preceding claim from 1 to 3 wherein the base member is made from resilient material.
6. A foot mat according to any one preceding claim wherein the protrusions are in the form of tapered spikes.

7. A foot mat according to any one preceding claim from 1 to 5 wherein the protrusions are in the form of upstanding rib-like members.
8. A foot mat according to claim 6 wherein the spikes are of round cross section.
9. A foot mat according to claim 6 wherein the spikes are of rectangular cross section.
10. A foot mat substantially as hereinbefore described with reference to the accompanying description and Figures 1 and 2; or Figure 3 of the drawings.

Patents Act 1977
Examiner's report to the Comptroller under
Section 17 (The Search Report)

Application number

GB 9313918.6

Relevant Technical fields

(i) UK Cl (Edition L) A4S (S1D, S1F, S1J, S1K)

(ii) Int Cl (Edition 5) A47L 23/22, 23/24

Databases (see over)

(i) UK Patent Office

(ii) ONLINE DATABASE: WPI

Search Examiner

S J QUICK

Date of Search

4 AUGUST 1993

Documents considered relevant following a search in respect of claims -10

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
A	GB 1341817 (ETABLISSEMENTS DAUPHANT) 28 December 1973, see Figure 2 (orifices 4 through which projections 2 pass)	-

Category	Identity of document and relevant passages - 8 -	Relevant to claim(s)

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family, corresponding document.

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).